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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	SEP 09	CA/CAPLUS records now contain indexing from 1907 to the present
NEWS 4	DEC 08	INPADOC: Legal Status data reloaded
NEWS 5	SEP 29	DISSABS now available on STN
NEWS 6	OCT 10	PCTFULL: Two new display fields added
NEWS 7	OCT 21	BIOSIS file reloaded and enhanced
NEWS 8	OCT 28	BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS 9	NOV 24	MSDS-CCOHS file reloaded
NEWS 10	DEC 08	CABA reloaded with left truncation
NEWS 11	DEC 08	IMS file names changed
NEWS 12	DEC 09	Experimental property data collected by CAS now available in REGISTRY
NEWS 13	DEC 09	STN Entry Date available for display in REGISTRY and CA/CAPLUS
NEWS 14	DEC 17	DGENE: Two new display fields added
NEWS 15	DEC 18	BIOTECHNO no longer updated
NEWS 16	DEC 19	CROPU no longer updated; subscriber discount no longer available
NEWS 17	DEC 22	Additional INPI reactions and pre-1907 documents added to CAS databases
NEWS 18	DEC 22	IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields
NEWS 19	DEC 22	ABI-INFORM now available on STN
NEWS 20	JAN 27	Source of Registration (SR) information in REGISTRY updated and searchable
NEWS 21	JAN 27	A new search aid, the Company Name Thesaurus, available in CA/CAPLUS
NEWS 22	FEB 05	German (DE) application and patent publication number format changes
NEWS 23	MAR 03	MEDLINE and LMEDLINE reloaded
NEWS 24	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS 25	MAR 03	FRANCEPAT now available on STN
NEWS EXPRESS	MARCH 5	CURRENT WINDOWS VERSION IS V7.00A, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 3 MARCH 2004
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FILE 'HOME' ENTERED AT 15:42:06 ON 24 MAR 2004

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'MEDLINE' ENTERED AT 15:42:26 ON 24 MAR 2004

FILE 'BIOSIS' ENTERED AT 15:42:26 ON 24 MAR 2004
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FILE 'WPIDS' ENTERED AT 15:42:26 ON 24 MAR 2004
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FILE 'DGENE' ENTERED AT 15:42:26 ON 24 MAR 2004
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=> s holophycobiliprotein
L1 4 HOLOPHYCOBILIPROTEIN

=> s ?phycobiliprotein?
LEFT TRUNCATION IGNORED FOR '?PHYCOBILIPROTEIN?' FOR FILE 'DGENE'
L2 1971 ?PHYCOBILIPROTEIN?
Left truncation is not valid in the specified search field in the specified file. The term has been searched without left truncation. Examples: '?TERPEN?' would be searched as 'TERPEN?' and '?FLAVONOID' would be searched as 'FLAVONOID.'

If you are searching in a field that uses implied proximity, and you used a truncation symbol after a punctuation mark, the system may interpret the truncation symbol as being at the beginning of a term. Implied proximity is used in search fields indexed as single words, for example, the Basic Index.

=> d l1 ti abs ibib tot

L1 ANSWER 1 OF 4 MEDLINE on STN
TI Biosynthesis of a fluorescent cyanobacterial C-phycocyanin holo-alpha subunit in a heterologous host.
AB The entire pathway for the synthesis of a fluorescent **holophycobiliprotein** subunit from a photosynthetic cyanobacterium (*Synechocystis* sp. PCC6803) was reconstituted in *Escherichia coli*. Cyanobacterial genes encoding enzymes required for the conversion of heme to the natural chromophore 3Z-phycocyanobilin, namely, heme oxygenase 1 and 3Z-phycocyanobilin:ferredoxin oxidoreductase, were expressed from a plasmid under control of the hybrid trp-lac (trc) promoter. Genes for the apoprotein (C-phycocyanin alpha subunit; cpcA) and the heterodimeric lyase (cpcE and cpcF) that catalyzes chromophore attachment were expressed from the trc promoter on a second plasmid. Upon induction, recombinant *E. coli* used the cellular pool of heme to produce holo-CpcA with spectroscopic properties qualitatively and quantitatively similar to those of the same protein produced endogenously in cyanobacteria. About a third of the

apo-CpcA was converted to holo-CpcA. No significant bilin addition took place in a similarly engineered E. coli strain that lacks cpcE and cpcF. This approach should permit incisive analysis of many remaining questions in phycobiliprotein biosynthesis. These studies also demonstrate the feasibility of generating constructs of these proteins in situ for use as fluorescent protein probes in living cells.

ACCESSION NUMBER: 2001504133 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11553806
TITLE: Biosynthesis of a fluorescent cyanobacterial C-phycocyanin holo-alpha subunit in a heterologous host.
AUTHOR: Tooley A J; Cai Y A; Glazer A N
CORPORATE SOURCE: Department of Molecular and Cell Biology, University of California, 142 LSA no. 3200, Berkeley, CA 94720-3200, USA.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (2001 Sep 11) 98 (19) 10560-5. Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200111
ENTRY DATE: Entered STN: 20010913
Last Updated on STN: 20011105
Entered Medline: 20011101

L1 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Biosynthesis of a fluorescent cyanobacterial C-phycocyanin holo-alpha subunit in a heterologous host.
AB The entire pathway for the synthesis of a fluorescent **holophycobiliprotein** subunit from a photosynthetic cyanobacterium (*Synechocystis* sp. PCC6803) was reconstituted in *Escherichia coli*. Cyanobacterial genes encoding enzymes required for the conversion of heme to the natural chromophore 3Z-phycocyanobilin, namely, heme oxygenase 1 and 3Z-phycocyanobilin:ferredoxin oxidoreductase, were expressed from a plasmid under control of the hybrid trp-lac (trc) promoter. Genes for the apoprotein (C-phycocyanin alpha subunit; cpcA) and the heterodimeric lyase (cpcE and cpcF) that catalyzes chromophore attachment were expressed from the trc promoter on a second plasmid. Upon induction, recombinant E. coli used the cellular pool of heme to produce holo-CpcA with spectroscopic properties qualitatively and quantitatively similar to those of the same protein produced endogenously in cyanobacteria. About a third of the apo-CpcA was converted to holo-CpcA. No significant bilin addition took place in a similarly engineered E. coli strain that lacks cpcE and cpcF. This approach should permit incisive analysis of many remaining questions in phycobiliprotein biosynthesis. These studies also demonstrate the feasibility of generating constructs of these proteins in situ for use as fluorescent protein probes in living cells.

ACCESSION NUMBER: 2001:482056 BIOSIS
DOCUMENT NUMBER: PREV200100482056
TITLE: Biosynthesis of a fluorescent cyanobacterial C-phycocyanin holo-alpha subunit in a heterologous host.
AUTHOR(S): Tooley, Aaron J.; Cai, Yuping A.; Glazer, Alexander N.
[Reprint author]
CORPORATE SOURCE: Natural Reserve System, University of California System, 1111 Franklin Street, 6th Floor, Oakland, CA, 94607-5200, USA
alexander.glazer@ucop.edu
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (September 11, 2001) Vol. 98, No. 19, pp. 10560-10565. print.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 17 Oct 2001

Last Updated on STN: 23 Feb 2002

L1 ANSWER 3 OF 4 USPATFULL on STN
TI Engineering of living cells for the expression of holo-phycobiliprotein-based constructs
AB Recombinant cells which express a fluorescent holo-phycobiliprotein fusion protein and methods of use are described. The cells comprises a bilin, a recombinant bilin reductase, an apo-phycobiliprotein fusion protein precursor of the fusion protein comprising a corresponding apo-phycobiliprotein domain, and a recombinant phycobiliprotein domain-bilin lyase, which components react to form the holo-phycobiliprotein fusion protein. Also described are holo-phycobiliprotein based transcription reporter cells and assays, which cells conditionally express a heterologous-to-the-cell, fluorescent, first holo-phycobiliprotein domain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:37640 USPATFULL
TITLE: Engineering of living cells for the expression of holo-phycobiliprotein-based constructs
INVENTOR(S): Glazer, Alexander N., Berkeley, CA, UNITED STATES
Tooley, Aaron J., Berkeley, CA, UNITED STATES
Cai, Yuping, Carmel, IN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003027285	A1	20030206
APPLICATION INFO.:	US 2001-919486	A1	20010731 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 75 DENISE DRIVE, HILLSBOROUGH, CA, 94010		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	918		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L1 ANSWER 4 OF 4 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
TI Biosynthesis of a fluorescent cyanobacterial C-phycoerythrin holo- α subunit in a heterologous host.
AB The entire pathway for the synthesis of a fluorescent **holophycobiliprotein** subunit from a photosynthetic cyanobacterium (*Synechocystis* sp. PCC6803) was reconstituted in *Escherichia coli*. Cyanobacterial genes encoding enzymes required for the conversion of heme to the natural chromophore 3Z-phycoerythrin, namely, heme oxygenase 1 and 3Z-phycoerythrin:ferredoxin oxidoreductase, were expressed from a plasmid under control of the hybrid trp-lac (trc) promoter. Genes for the apoprotein (C-phycoerythrin α subunit; cpcA) and the heterodimeric lyase (cpcE and cpcF) that catalyzes chromophore attachment were expressed from the trc promoter on a second plasmid. Upon induction, recombinant *E. coli* used the cellular pool of heme to produce holo-CpcA with spectroscopic properties qualitatively and quantitatively similar to those of the same protein produced endogenously in cyanobacteria. About a third of the apo-CpcA was converted to holo-CpcA. No significant bilin addition took place in a similarly engineered *E. coli* strain that lacks cpcE and cpcF. This approach should permit incisive analysis of many remaining questions in phycobiliprotein biosynthesis. These studies also demonstrate the feasibility of generating constructs of these proteins in situ for use as fluorescent protein probes in living cells.

ACCESSION NUMBER: 2001329835 EMBASE
TITLE: Biosynthesis of a fluorescent cyanobacterial C-phycoerythrin holo- α subunit in a heterologous host.

AUTHOR: Tooley A.J.; Cai Y.A.; Glazer A.N.
 CORPORATE SOURCE: A.N. Glazer, Natural Reserve System, University of California System, 1111 Franklin Street, Oakland, CA 94607-5200, United States. alexander.glazer@ucop.edu
 SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (11 Sep 2001) 98/19 (10560-10565).
 Refs: 30
 ISSN: 0027-8424 CODEN: PNASAG
 COUNTRY: United States
 DOCUMENT TYPE: Journal; Article
 FILE SEGMENT: 004 Microbiology
 LANGUAGE: English
 SUMMARY LANGUAGE: English

=> d his

(FILE 'HOME' ENTERED AT 15:42:06 ON 24 MAR 2004)

FILE 'MEDLINE, BIOSIS, WPIDS, USPATFULL, DGENE, EMBASE' ENTERED AT 15:42:26 ON 24 MAR 2004

L1 4 S HOLOPHYCOBILIPROTEIN
 L2 1971 S ?PHYCOBILIPROTEIN?

=> s l2 and fusion protein
 L3 132 L2 AND FUSION PROTEIN

=> s l3 and fluorescent
 L4 124 L3 AND FLUORESCENT

=> s l4 and heme oxygenase
 L5 4 L4 AND HEME OXYGENASE

=> d l5 ti abs ibib tot

L5 ANSWER 1 OF 4 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 TI New recombinant cell comprising a heterologous-to-the-cell, **fluorescent**, first holo-**phycobiliprotein** domain fused a heterologous protein domain, useful for expressing a holo-**phycobiliprotein fusion protein**.
 AN 2003-466144 [44] WPIDS
 AB US2003027285 A UPAB: 20030710
 NOVELTY - A recombinant cell expressing a holo-**phycobiliprotein fusion protein** comprising a heterologous-to-the-cell, **fluorescent**, first holo-**phycobiliprotein** domain fused a heterologous protein domain, is new.
 DETAILED DESCRIPTION - A recombinant cell expressing a holo-**phycobiliprotein fusion protein** comprising a heterologous-to-the-cell, **fluorescent**, first holo-**phycobiliprotein** domain fused a heterologous protein domain. The cell makes and comprises components such as a bilin, a recombinant bilin reductase, an apo-**phycobiliprotein fusion protein** precursor of the **fusion protein** comprising a corresponding apo-**phycobiliprotein** domain, and a recombinant **phycobiliprotein** domain-bilin lyase, which components react inside the cell to form the holo-**phycobiliprotein fusion protein**.
 An INDEPENDENT CLAIM is also included for making a holo-**phycobiliprotein fusion protein** by growing the cell under conditions where the cell expresses the holo-**phycobiliprotein fusion protein**.
 USE - The cells are useful for expressing holo-**phycobiliprotein**-based constructs, useful in enzymology and

chemistry of **phycobiliprotein** synthesis. The **phycobiliproteins** are useful as in vivo **fluorescent** protein probes.

Dwg.0/3

ACCESSION NUMBER: 2003-466144 [44] WPIDS
DOC. NO. NON-CPI: N2003-370782
DOC. NO. CPI: C2003-124291
TITLE: New recombinant cell comprising a heterologous-to-the-cell, **fluorescent**, first holo-**phycobiliprotein** domain fused a heterologous protein domain, useful for expressing a holo-**phycobiliprotein fusion protein**
DERWENT CLASS: B04 D16 P13 S03
INVENTOR(S): CAI, Y; GLAZER, A N; TOOLEY, A J
PATENT ASSIGNEE(S): (CAIY-I) CAI Y; (GLAZ-I) GLAZER A N; (TOOL-I) TOOLEY A J; (REGC) UNIV CALIFORNIA
COUNTRY COUNT: 100
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003027285	A1	20030206	(200344)*		13
WO 2003012448	A1	20030213	(200344)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU					
MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK					
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR					
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT					
RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003027285	A1	US 2001-919486	20010731
WO 2003012448	A1	WO 2002-US24245	20020730

PRIORITY APPLN. INFO: US 2001-919486 20010731

L5 ANSWER 2 OF 4 USPATFULL on STN
TI HY2 family of bilin reductases
AB This invention identifies a novel family of bilin reductases. Designated herein HY bilin reductases, the enzymes of this invention are useful in a wide variety of contexts including but not limited to the conversion of biliverdins to phytobilins and the assembly of holophytochromes or phytofluors.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:152713 USPATFULL
TITLE: HY2 family of bilin reductases
INVENTOR(S): Lagarias, John Clark, Davis, CA, UNITED STATES
Kochi, Takayuki, Ikoma, JAPAN
Frankenberg, Nicole, Davis, CA, UNITED STATES
Gambetta, Gregory A., Davis, CA, UNITED STATES
Montgomery, Beronda L., Bloomington, IN, UNITED STATES
PATENT ASSIGNEE(S): The Regents of the University of California (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003104379	A1	20030605
APPLICATION INFO.:	US 2001-870406	A1	20010529 (9)

09/919, 486

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-271758P	20010226 (60)
	US 2000-210286P	20000608 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501	
NUMBER OF CLAIMS:	79	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	23 Drawing Page(s)	
LINE COUNT:	4474	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L5 ANSWER 3 OF 4 USPATFULL on STN
TI Light controlled gene expression utilizing heterologous phytochromes
AB This invention relates to the field of gene expression. In particular this invention relates to the use of heterologous phytochromes to translocate polypeptides into the nucleus of a cell. Where the polypeptides comprise transactivators or repressors this invention provides a system for light-directed gene expression.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2003:106324 USPATFULL
TITLE: Light controlled gene expression utilizing heterologous phytochromes
INVENTOR(S): Lagarias, John Clark, Davis, CA, UNITED STATES
Kochi, Takayuki, Daigakusyuku sya, JAPAN
Frankenberg, Nicole, Davis, CA, UNITED STATES
Gambetta, Gregory A., Davis, CA, UNITED STATES
Montgomery, Beronda L., Bloomington, IN, UNITED STATES
PATENT ASSIGNEE(S): The Regents of the University of California (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003073235	A1	20030417
APPLICATION INFO.:	US 2002-159901	A1	20020529 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-294463P	20010529 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	20 Drawing Page(s)	
LINE COUNT:	4485	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L5 ANSWER 4 OF 4 USPATFULL on STN
TI Engineering of living cells for the expression of holo-
phycobiliprotein-based constructs
AB Recombinant cells which express a **fluorescent holo-phycobiliprotein fusion protein** and methods of use are described. The cells comprises a bilin, a recombinant bilin reductase, an apo-**phycobiliprotein fusion protein** precursor of the **fusion protein** comprising a corresponding apo-**phycobiliprotein** domain, and a recombinant **phycobiliprotein** domain-bilin lyase, which components react to form the holo-**phycobiliprotein**

fusion protein. Also described are holo-
phycobiliprotein based transcription reporter cells and assays,
which cells conditionally express a heterologous-to-the-cell,
fluorescent, first holo-**phycobiliprotein** domain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:37640 USPATFULL
TITLE: Engineering of living cells for the expression of holo-
phycobiliprotein-based constructs
INVENTOR(S): Glazer, Alexander N., Berkeley, CA, UNITED STATES
Toohey, Aaron J., Berkeley, CA, UNITED STATES
Cai, Yuping, Carmel, IN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003027285	A1	20030206
APPLICATION INFO.:	US 2001-919486	A1	20010731 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 75 DENISE DRIVE, HILLSBOROUGH, CA, 94010		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	918		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 15:42:06 ON 24 MAR 2004)

FILE 'MEDLINE, BIOSIS, WPIDS, USPATFULL, DGENE, EMBASE' ENTERED AT
15:42:26 ON 24 MAR 2004

L1 4 S HOLOPHYCOBILIPROTEIN
L2 1971 S ?PHYCOBILIPROTEIN?
L3 132 S L2 AND FUSION PROTEIN
L4 124 S L3 AND FLUORESCENT
L5 4 S L4 AND HEME OXYGENASE

=> s PCB
L6 78369 PCB

=> s PcyA
L7 27 PCYA

=> s l6 and l7
L8 13 L6 AND L7

=> s CpcE
L9 52 CPCE

=> s CpcF
L10 55 CPCF

=> s l9 and l10
L11 34 L9 AND L10

=> s l8 and l11
L12 2 L8 AND L11

=> d l12 ti abs ibib tot

L12 ANSWER 1 OF 2 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

TI New recombinant cell comprising a heterologous-to-the-cell, fluorescent, first holo-phytycobiliprotein domain fused a heterologous protein domain, useful for expressing a holo-phytycobiliprotein fusion protein.

AN 2003-466144 [44] WPIDS

AB US2003027285 A UPAB: 20030710

NOVELTY - A recombinant cell expressing a holo-phytycobiliprotein fusion protein comprising a heterologous-to-the-cell, fluorescent, first holo-phytycobiliprotein domain fused a heterologous protein domain, is new.

DETAILED DESCRIPTION - A recombinant cell expressing a holo-phytycobiliprotein fusion protein comprising a heterologous-to-the-cell, fluorescent, first holo-phytycobiliprotein domain fused a heterologous protein domain. The cell makes and comprises components such as a bilin, a recombinant bilin reductase, an apo-phytycobiliprotein fusion protein precursor of the fusion protein comprising a corresponding apo-phytycobiliprotein domain, and a recombinant phytycobiliprotein domain-bilin lyase, which components react inside the cell to form the holo-phytycobiliprotein fusion protein.

An INDEPENDENT CLAIM is also included for making a holo-phytycobiliprotein fusion protein by growing the cell under conditions where the cell expresses the holo-phytycobiliprotein fusion protein.

USE - The cells are useful for expressing holo-phytycobiliprotein-based constructs, useful in enzymology and chemistry of phytycobiliprotein synthesis. The phytycobiliproteins are useful as in vivo fluorescent protein probes.

Dwg.0/3

ACCESSION NUMBER: 2003-466144 [44] WPIDS

DOC. NO. NON-CPI: N2003-370782

DOC. NO. CPI: C2003-124291

TITLE: New recombinant cell comprising a heterologous-to-the-cell, fluorescent, first holo-phytycobiliprotein domain fused a heterologous protein domain, useful for expressing a holo-phytycobiliprotein fusion protein.

DERWENT CLASS: B04 D16 P13 S03

INVENTOR(S): CAI, Y; GLAZER, A N; TOOLEY, A J

PATENT ASSIGNEE(S): (CAIY-I) CAI Y; (GLAZ-I) GLAZER A N; (TOOL-I) TOOLEY A J; (REGC) UNIV CALIFORNIA

COUNTRY COUNT: 100

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003027285	A1	20030206	(200344)*		13
WO 2003012448	A1	20030213	(200344)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU					
MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK					
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR					
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT					
RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003027285	A1	US 2001-919486	20010731
WO 2003012448	A1	WO 2002-US24245	20020730

PRIORITY APPLN. INFO: US 2001-919486 20010731

L12 ANSWER 2 OF 2 USPATFULL on STN

TI Engineering of living cells for the expression of holo-phytycobiliprotein-based constructs

AB Recombinant cells which express a fluorescent holo-phytycobiliprotein

fusion protein and methods of use are described. The cells comprises a bilin, a recombinant bilin reductase, an apo-phytycobiliprotein fusion protein precursor of the fusion protein comprising a corresponding apo-phytycobiliprotein domain, and a recombinant phytycobiliprotein domain-bilin lyase, which components react to form the holo-phytycobiliprotein fusion protein. Also described are holo-phytycobiliprotein based transcription reporter cells and assays, which cells conditionally express a heterologous-to-the-cell, fluorescent, first holo-phytycobiliprotein domain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:37640 USPATFULL

TITLE: Engineering of living cells for the expression of holo-phytycobiliprotein-based constructs

INVENTOR(S): Glazer, Alexander N., Berkeley, CA, UNITED STATES
Tooley, Aaron J., Berkeley, CA, UNITED STATES
Cai, Yuping, Carmel, IN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003027285	A1	20030206
APPLICATION INFO.:	US 2001-919486	A1	20010731 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 75 DENISE DRIVE, HILLSBOROUGH, CA, 94010		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	918		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 15:42:06 ON 24 MAR 2004)

FILE 'MEDLINE, BIOSIS, WPIDS, USPATFULL, DGENE, EMBASE' ENTERED AT 15:42:26 ON 24 MAR 2004

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L1      4 S HOLOPHYCOBILIPROTEIN
L2     1971 S ?PHYCOBILIPROTEIN?
L3     132 S L2 AND FUSION PROTEIN
L4     124 S L3 AND FLUORESCENT
L5      4 S L4 AND HEME OXYGENASE
L6    78369 S PCB
L7      27 S PCYA
L8     13 S L6 AND L7
L9     52 S CPCE
L10    55 S CPCF
L11    34 S L9 AND L10
L12     2 S L8 AND L11

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=> s l2 and E. coli

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L13      243 L2 AND E. COLI
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=> s l7 and l13

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L14      3 L7 AND L13
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=> d l14 ti abs ibib tot

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L14 ANSWER 1 OF 3 USPATFULL on STN
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TI      HY2 family of bilin reductases
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AB      This invention identifies a novel family of bilin reductases. Designated
        herein HY bilin reductases, the enzymes of this invention are useful in
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a wide variety of contexts including but not limited to the conversion of biliverdins to phytobilins and the assembly of holophytochromes or phytofluors.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:152713 USPATFULL
TITLE: HY2 family of bilin reductases
INVENTOR(S): Lagarias, John Clark, Davis, CA, UNITED STATES
Kochi, Takayuki, Ikoma, JAPAN
Frankenberg, Nicole, Davis, CA, UNITED STATES
Gambetta, Gregory A., Davis, CA, UNITED STATES
Montgomery, Beronda L., Bloomington, IN, UNITED STATES
PATENT ASSIGNEE(S): The Regents of the University of California (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003104379	A1	20030605
APPLICATION INFO.:	US 2001-870406	A1	20010529 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-271758P	20010226 (60)
	US 2000-210286P	20000608 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501	
NUMBER OF CLAIMS:	79	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	23 Drawing Page(s)	
LINE COUNT:	4474	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 2 OF 3 USPATFULL on STN

TI Light controlled gene expression utilizing heterologous phytochromes
AB This invention relates to the field of gene expression. In particular this invention relates to the use of heterologous phytochromes to translocate polypeptides into the nucleus of a cell. Where the polypeptides comprise transactivators or repressors this invention provides a system for light-directed gene expression.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:106324 USPATFULL
TITLE: Light controlled gene expression utilizing heterologous phytochromes
INVENTOR(S): Lagarias, John Clark, Davis, CA, UNITED STATES
Kochi, Takayuki, Daigakusyuku sya, JAPAN
Frankenberg, Nicole, Davis, CA, UNITED STATES
Gambetta, Gregory A., Davis, CA, UNITED STATES
Montgomery, Beronda L., Bloomington, IN, UNITED STATES
PATENT ASSIGNEE(S): The Regents of the University of California (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003073235	A1	20030417
APPLICATION INFO.:	US 2002-159901	A1	20020529 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-294463P	20010529 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	

LEGAL REPRESENTATIVE: QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX
458, ALAMEDA, CA, 94501
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 20 Drawing Page(s)
LINE COUNT: 4485
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 3 OF 3 USPATFULL on STN

TI Engineering of living cells for the expression of holo-
phycobiliprotein-based constructs
AB Recombinant cells which express a fluorescent holo-
phycobiliprotein fusion protein and methods of use are
described. The cells comprises a bilin, a recombinant bilin reductase,
an apo-**phycobiliprotein** fusion protein precursor of the fusion
protein comprising a corresponding apo-**phycobiliprotein**
domain, and a recombinant **phycobiliprotein** domain-bilin lyase,
which components react to form the holo-**phycobiliprotein**
fusion protein. Also described are holo-**phycobiliprotein** based
transcription reporter cells and assays, which cells conditionally
express a heterologous-to-the-cell, fluorescent, first holo-
phycobiliprotein domain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:37640 USPATFULL
TITLE: Engineering of living cells for the expression of holo-
phycobiliprotein-based constructs
INVENTOR(S): Glazer, Alexander N., Berkeley, CA, UNITED STATES
Tooley, Aaron J., Berkeley, CA, UNITED STATES
Cai, Yuping, Carmel, IN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003027285	A1	20030206
APPLICATION INFO.:	US 2001-919486	A1	20010731 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 75 DENISE DRIVE, HILLSBOROUGH, CA, 94010		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	918		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.